

180092

JPRS 80880

21 May 1982

# Worldwide Report

EPIDEMIOLOGY

No. 279

19981203 120

**FBIS**

FOREIGN BROADCAST INFORMATION SERVICE

DTIC QUALITY INSPECTED 3

REPRODUCED BY  
NATIONAL TECHNICAL  
INFORMATION SERVICE  
U.S. DEPARTMENT OF COMMERCE  
SPRINGFIELD, VA. 22161

4  
56  
A04

#### NOTE

JPRS publications contain information primarily from foreign newspapers, periodicals and books, but also from news agency transmissions and broadcasts. Materials from foreign-language sources are translated; those from English-language sources are transcribed or reprinted, with the original phrasing and other characteristics retained.

Headlines, editorial reports, and material enclosed in brackets [] are supplied by JPRS. Processing indicators such as [Text] or [Excerpt] in the first line of each item, or following the last line of a brief, indicate how the original information was processed. Where no processing indicator is given, the information was summarized or extracted.

Unfamiliar names rendered phonetically or transliterated are enclosed in parentheses. Words or names preceded by a question mark and enclosed in parentheses were not clear in the original but have been supplied as appropriate in context. Other unattributed parenthetical notes within the body of an item originate with the source. Times within items are as given by source.

The contents of this publication in no way represent the policies, views or attitudes of the U.S. Government.

#### PROCUREMENT OF PUBLICATIONS

JPRS publications may be ordered from the National Technical Information Service, Springfield, Virginia 22161. In ordering, it is recommended that the JPRS number, title, date and author, if applicable, of publication be cited.

Current JPRS publications are announced in Government Reports Announcements issued semi-monthly by the National Technical Information Service, and are listed in the Monthly Catalog of U.S. Government Publications issued by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

Correspondence pertaining to matters other than procurement may be addressed to Joint Publications Research Service, 1000 North Glebe Road, Arlington, Virginia 22201.

21 May 1982

## WORLDWIDE REPORT

## EPIDEMIOLOGY

No. 279

## CONTENTS

## HUMAN DISEASES

## ARGENTINA

## Briefs

Scrub Typhus in Falklands 1

## AUSTRALIA

## Briefs

Ross River Virus 2

## BANGLADESH

## Briefs

Khulna Diarrhea Epidemic 3

Whooping Cough Epidemic 3

## BRAZIL

Incidence of Leprosy in Amazon Region Discussed  
(JORNAL DO BRASIL, 15 Apr 82) ..... 4

## Briefs

Malaria Outbreak in Brasilia 5

Yellow Fever Threat 5

## INDIA

Inadequate Facilities, Low Standards in Medical Colleges  
Criticized  
(Farzand Ahmed; INDIA TODAY, 15 May 82) ..... 6

Tuberculosis Termed Major Killer in Maharashtra (THE TIMES OF INDIA, 14 Apr 82) .....	8
Karnataka Antimalaria Campaign Fails, More Cases (THE TIMES OF INDIA, 5 Apr 82) .....	9
INDONESIA	
Briefs	
Hemorrhagic Fever in Bondowoso	10
Anthrax in West Nusa Tenggara	10
MOZAMBIQUE	
Tse-Tse Fly Prevalence, Treatment Reviewed (DOMINGO, 11 Apr 82) .....	12
PAKISTAN	
Federal Cabinet Discusses Health Care Plans (DAWN, 19 Apr 82) .....	14
Adequate Planning for Eradicating Tuberculosis Stressed (VIEWPOINT, 15 Apr 82) .....	16
Government Taking Steps To Absorb Maximum Number of Doctors (MORNING NEWS, 29 Apr 82) .....	18
Leprosy Eradication Efforts (Iqbal S. Hussain; DAWN, 30 Apr 82) .....	19
PHILIPPINES	
Briefs	
Lapu-Lapu City Bronchitis	21
Leprosy Increasing in Central Luzon	21
SOUTH AFRICA	
Collapse of Preventive Services Leads To Threat of Increased Disease (THE CITIZEN, 6 May 82) .....	22
TANZANIA	
Briefs	
Cholera Deaths, Incidence	23
TRINIDAD AND TOBAGO	
Briefs	
New Sewer Line	24

## VIETNAM

Minister of Health Discusses Public Health Problems (Vu Van Can; NHAN DAN, 10 Apr 82) .....	25
--	----

## ZAMBIA

Luapula Cholera Under Control (DAILY MAIL, 21 Apr 82) .....	29
SIDA To Provide Rabies Vaccine, Trypanosomiasis Drug (DAILY MAIL, 25 Mar 82) .....	30

## ANIMAL DISEASES

### AUSTRALIA

Briefs	
Ryegrass Toxicity Battle	31
Maize Disease Threat	31

### BANGLADESH

Briefs	
Poultry Disease Epidemic	32

### DENMARK

Three New Cases of Foot-and-Mouth Disease Reported (Jens Trudso; BERLINGSKE TIDENDE, 22 Apr 82) .....	33
--	----

### MOZAMBIQUE

Briefs	
Sofala Animal Diseases	34

### SWEDEN

Briefs	
Salmonella Hits Broiler Stocks	35
Feed Suspected in Chickens' Salmonella	35

### ZAMBIA

Government Urged To Import Foot-and-Mouth Disease Vaccines (TIMES OF ZAMBIA, 19 Apr 82) .....	37
FAO Donates Foot-and-Mouth Disease Vaccines (DAILY MAIL, 20 Apr 82) .....	38

# PLANT DISEASES AND INSECT PESTS

## AUSTRALIA

Briefs	
Unrestricted Fruit Shipment	39

## ETHIOPIA

Briefs	
Worm Control	40

## TANZANIA

Grain-Eating Birds Spread, Damage Millet, Paddy Farms (DAILY NEWS, 24 Apr 82) .....	41
Batteries Required for Bollworm Sprayers Received (DAILY NEWS, 17 Apr 82) .....	42
Large Grain Borer Spreads Throughout Shinyanga Region (DAILY NEWS, 21 Apr 82) .....	43
Bean Crop Saved From Worms (DAILY NEWS, 22 Apr 82) .....	44

## TRINIDAD AND TOBAGO

African Bees Being Controlled Through Government Programs (TRINIDAD GUARDIAN, 20 Apr 82) .....	45
---	----

## VIETNAM

North Works To Prevent Insect Infestation (QUAN DOI NHAN DAN, 12 Apr 82) .....	47
Briefs	
Ha Nam Ninh Harmful Insects	49

## ARGENTINA

### BRIEFS

SCRUB TYPHUS IN FALKLANDS--Argentine forces in East Falklands may be suffering from a virulent disease called scrub typhus, Western intelligence sources claimed tonight. About 5,000 Argentine marines are based on the island--4,000 around Port Stanley, and 1,000 near Darwin. In London, the Falkland Island Office said there had been reports of dysentery among the Argentinians, but tonight's report was the first suggestion of typhus. "It is such an isolated spot that there is never any illness among the islanders--not even chicken pox," said a spokesman. "But when the Argentinians landed, their amphibious-tracked vehicles broke the water supply, and sewage pipes under the main street in Port Stanley. "This is thought to have caused dysentery." Scrub typhus, also known as Japanese river fever, is transmitted by the larvae of mites which become infected by rats. It is more likely to occur when sewage systems break down. The disease, which is treated with antibiotics, causes high temperatures, headaches, backache and eye congestion. [Text] [LD051632 London PRESS ASSOCIATION in English 1521 GMT 5 May 82]

CSO: 5400/2141

## AUSTRALIA

### BRIEFS

ROSS RIVER VIRUS--A tropical virus which can severely debilitate victims for up to two years has hit Perth's northern suburbs. At least 18 cases of the Ross River virus have been found in Western Australia since January, including seven in Perth's northern suburbs of Craigie and Kingsley. Victims suffer arthritis in several joints at once and fever and skin rashes. Although it isn't a deadly disease, the symptoms can last for several years. More than 58 cases of the virus were diagnosed in Western Australia last year and 12 in the Northern Territory. A State Health Laboratories team investigating the affected areas in Perth suburbs is baffled by the spread of the disease. A spokesman for the laboratories said yesterday: "We know that like arbovirus encephalitis it is spread by mosquitoes, but we don't know what animal acts as a reservoir in the wild. "We are doing tests on various animals in the swampy areas of the northern suburbs such as Lake Joondalup and Lake Gwelup." Sickness hits victims after they are bitten by mosquitoes carrying the virus. The spokesman said that although the State Health Department had ordered extensive research and surveillance of the virus, it was not expected to reach epidemic proportions. [Canberra THE WEEKEND AUSTRALIAN in English 27-28 Mar 82 p 3]

CSO: 5400/7547



BRIEFS

**KHULNA DIARRHEA EPIDEMIC--**Khulna, April 20--At least twenty-seven persons died of diarrhoea in Khulna town and its nearby places during the fortnight ending April 19. A total of about 733 diarrhoea-patients were admitted into Mirerdanga infectious disease hospital during the period from April 5 to April 19 and twenty-seven of them died there according to the acting Civil Surgeon. Most of the dead belonged to the children group, he said. The infectious disease hospital has now been provided with an adequate stock of medicines required for treatment of diarrhoea and other infectious disease cases. In view of the widespread outbreak of the infectious disease, the Deputy Commissioner of Khulna district has directed the people of Khulna town and its adjacent places to drink boiled water, avoid exposed foodstuff and water for drinking purposes, maintain proper cleanliness in and around the houses and use water purification tablets for making water germ-free. Necessary publicity about the directives of the Deputy Commissioner in this regard is being given here through microphones and announcements by the Khulna centre of Radio Bangladesh. [Text] [Dacca THE BANGLADESH TIMES in English 21 Apr 82 p 8]

**WHOOPING COUGH EPIDEMIC--**Nilphamari, Apr 13--About 10,000 children are now suffering from whooping cough in the subdivision, physicians at the local hospital and rural health clinics are reported to have disclosed this. They said the disease has a life span of three months when children experience disturbed breathing due to coughing hours together. Reports said the disease has also broken out in villages near Dacca where hundreds of children have been attacked. The victims, among other troubles, undergo high temperature. Local clinics are prescribing medicine for temporary relief only. [Text] [Dacca THE NEW NATION in English 19 Apr 82 p 2]

CSO: 5400/7065

INCIDENCE OF LEPROSY IN AMAZON REGION DISCUSSED

Rio de Janeiro JORNAL DO BRASIL in Portuguese 15 Apr 82 p 15

[Text] In the poorer neighborhoods of cities in Amazonia, 10 out of 1,000 people are carriers of Hansen's disease, and it is more apt to attack under-nourished children, dermatologist Alcidarta dos Reis Gadelha reported yesterday. Gadelha, a professor of the Faculty of Health Sciences, is participating in the Second Dermatological Conference, sponsored by the University of Amazonas. Leprosy has assumed the proportions of a public disaster in the region, Gadelha added, and attributed the problem to the rural exodus, overcrowding, promiscuity, lack of hygiene and malnourishment, as the primary factors.

The specialist, who presented his study on "Skin Biopsies, Techniques for Collection and Examination," has been studying the development of leprosy in Amazonia, primarily in the region of the Purus River, "an endemic area by nature, presenting the largest focus of the disease," as he said. According to Gadelha, 1,242 new cases were reported in Amazonas in 1980 and 2,500 new cases in 1981, and at least 40 percent of these occurred in Manaus.

The greatest incidence of leprosy appears in the poor neighborhoods, but it is "also very high among school-age children, with 3 cases in each group of 3,000," the dermatologist said. However, Gadelha feels it is "very difficult" to control and eradicate the disease, especially when it reaches these proportions, "because to prophylaxis." The study which he presented yesterday on the treatment of leprosy is directed to physicians and residents in dermatology, explaining, for example, how to take specimens for a precise diagnosis. "Biopsy has a social effect, because it serves not only to indicate the presence of Hansen's disease in individuals, but also to identify other types of skin ailments."

6362

CSO: 5400/2138

## BRIEFS

MALARIA OUTBREAK IN BRASILANDIA--Yesterday, as SUCAM [Superintendency of Public Health Campaigns] was intensifying preventive vaccination against typhus and yellow fever among the residents of the islands and shore regions affected by the recent flooding of the Parana River in Brasilandia, Mato Grosso do Sul, endemical inspector Jose da Cruz Miranda confirmed an outbreak of malaria in the BRASA alcohol plant; although the outbreak is now under control, 160 people were affected. Miranda denied that the disease had been verified in other cities in the region, noting that this malaria focus was the first to appear in the last 20 years and that the contamination had resulted from the large influx of people from such infected regions as Chapada dos Guimaraes and from Paraguay, attracted by offers of employment in the alcohol plant. Of the 160 infected individuals, only 15 were not treated; sought by SUCAM technicians after blood samples indicated they were infected, these 15 had already left for other regions in the interior, such as Val Paraíso and Presidente Epitacio. The first cases of malaria were reported last February but, because of its rapid development, SUCAM moved the laboratory from its district in Três Lagoas to the alcohol plant, where it collected over 600 blood samples for analysis. While the victims were being medicated, SUCAM also sought to eradicate the disease-transmitting mosquitoes. [Excerpt] [Rio de Janeiro JORNAL DO BRASIL in Portuguese 16 Apr 82 p 12] 6362

YELLOW FEVER THREAT--Brasília--Urban yellow fever was eradicated in Brazil in 1942, but there is still the risk of contagion in urban areas of Rio de Janeiro, Natal (Rio Grande do Norte) and Salvador (Bahia), where the urban vector, the Aedes aegypti mosquito, has reappeared. For this reason, SUCAM is maintaining 600 endemic monitors in Rio alone, working to eradicate the carrier, particularly in the districts of Bangu, Bonsucesso and Sao Cristovao. Pedro Luiz Tauil, general director of the Department of Eradication and Control of Endemic Diseases, explains that jungle yellow fever, which is currently present in the country, is concentrated in the rural areas of the Amazon region and the Central West, so he recommends vaccination for anyone traveling to those regions. This is an animal disease, found mainly in monkeys, and is transmitted from sick to healthy animals by mosquitoes. Humans are infected only when they enter the jungle or its edges and are bitten by infected mosquitoes. If a person bitten in the jungle becomes ill in a city where the urban transmitter is present, it could initiate transmission of urban yellow fever and probably an endemic. [Text] [Rio de Janeiro JORNAL DO BRASIL in Portuguese 5 Apr 82 p 6] 6362

CSO: 5400/2138

## INADEQUATE FACILITIES, LOW STANDARDS IN MEDICAL COLLEGES CRITICIZED

New Delhi INDIA TODAY in English 15 May 82 pp 126-7

[Article by Farzand Ahmed]

[Text]

**W**HEN the Indian Medical Council (IMC) decided to de-recognise five medical colleges in Bihar from May 1, it came as no surprise to anyone. It was common knowledge that the five have no facilities worth the name and that malpractices of all kinds flourish unchecked.

But the IMC had for years chosen to turn a blind eye to these matters. And it was finally goaded into action only by the remarks of an Englishman, Professor J.E.M. Smith of the Post-graduate Medical School, Hammersmith, UK.

**Scathing Observations:** Smith made a number of scathing remarks about the quality of medical education in India and said that the IMC was more than partly responsible, since it had done nothing to check the rot. His opinion was that many M.S and M.D degree holders in India did not have even minimal knowledge of their subjects and were certainly not comparable to F.R.C.S and M.R.C.P degree holders.

But Smith singled out Bihar colleges for special condemnation, saying: "The worst offenders are those from Bihar where till today unfair means have been employed on a large scale, both inside and outside the examination halls. Further, most of the examiners in Bihar and Uttar Pradesh take bribes. These cold facts are widely known except to the authorities of the Indian Medical Council."

Smith's remarks provoked the IMC into swift action. It quickly sent a team to check on the facilities offered by the medical colleges in Bihar. As a result of the team's report five colleges were de-recognised. Of the five institutions three—Nalanda Medical

College, Patna, Magadha Medical College, Gaya, Shrikrishna Medical College, Muzaffarpur—are private colleges which were taken over by the Government in 1978. Bhagalpur Medical College is run by the state Government and Pataliputra Medical College, Dhanbad, was also taken over by the Government in 1978.

Even by Bihar's lax standards the conditions in these colleges are outrageous. In the five colleges altogether 103 posts of professor and associate professor are vacant. Magadha Medical College has no professor except the principal. Pataliputra and Nalanda Medical Colleges do not have any professors in the gynaecology and pharmacology departments. Says the State Health Services Association Joint Secretary Gopal Prasad Sinha: "The private colleges should not have been allowed to grow. They have neither adequate teaching facilities and they have affected the prestige of the other colleges in the state." Other doctors confirm that many colleges do not have hospitals attached. Even Bhagalpur Medical College somehow manages to function without a building of its own.

**Futile Efforts:** The mismanagement of the private colleges prompted the Government to appoint a committee in 1972 to look into the functioning of private colleges. After the committee's report, the Government promulgated an ordinance banning the opening of such colleges. It also closed down five out of the nine private colleges. However, the Government was not really able to improve the situation very much. Examinations in the colleges were postponed time and time again. In 1977, after the fall of

the first Jagannath Mishra ministry, a board of control was set up to oversee the functioning of the colleges.

Much of the blame for the situation must fall upon the state Government. When these colleges were set up there was an understanding that the Government would help them along by providing adequate hospital facilities. This, in most cases, has never materialised. And its efforts to control the running of these colleges have been mostly ineffective.

In fact, the state is lucky that it still has any recognised medical colleges left. The situation in the other four medical colleges is not very different from what prevails in the de-recognised colleges. Patna Medical College (PMC), one of the oldest medical institutions in the country, has already been threatened with de-recognition once in 1972. Now it is again facing trouble over allegations that its examination results were manipulated. The degree course of Darbhanga Medical College is not recognised by the British Medical Council.

Messy State: Kamla Achari, the first lady principal of PMC, who survived a murderous attempt on her life recently, says that when she took over, the college was in a

mess. She adds: "The anatomy classes were closed for over a year, the pathology department had no modern equipment or space. The microbiology department was being run in one room."

PMC has had the distinction of having eight principals on an ad hoc basis in the short span of a year. One of the doctors, Gopal Prasad Sinha, says that doctors frequently have to bear the expenses of research

Many doctors and students place the blame squarely on the present Government. It is said that under Health Minister Umeshwar Prasad Verma, the working of the ministry has virtually stalled in the past one year. To what extent this is true is not certain but PMC Vice-president B. Mukhopadhyaya says that state authorities have not even bothered to reply to the letter communicating the BMC decision to de-recognise the colleges.

Now, however, the de-recognition may bring the students out into the streets. Then, of course, the Government would be forced to respond and do something to solve the problem. But at the moment it looks as if medical degrees awarded in Bihar will be nothing more than worthless scraps of paper.

## TUBERCULOSIS TERMED MAJOR KILLER IN MAHARASHTRA

Bombay THE TIMES OF INDIA in English 14 Apr 82 p 7

[Text]

BOMBAY, April 13.

**T**UBERCULOSIS (TB) is the major-killer in Maharashtra.

Dr. Baliram Hiray, state health minister, told the legislative assembly today that at present there were one million TB patients in the state, and on an average nearly 10 per cent of the total number of patients died every year.

Dr. Hiray, who was replying to the debate on the demands for grants of his department, said there were one lakh patients in Bombay alone. Out of this number, 25,000 were cases of "infective" variety which could spread to others, he said.

In the current year's budget, an amount of Rs. 3 crore had been earmarked on the tuberculosis eradication programme, Dr. Hiray said.

A programme for eradication of leprosy would be formulated after considering the reports and recommendations of the Gavai Committee and Swaminathan Committee, the health minister said, adding that the reports had been received by the government.

Dr. Hiray said that there were 6.75 lakh cataract patients in Maharashtra, out of whom 1.02 lakh patients had been operated upon during the year 1981-82. This, by itself was an achievement, he said, pointing out that the number was higher than the total number of cataract operations performed all over the country.

Dr. Hiray, who is also minister for urban development, replied to the debate on the demands of grants of urban development department. After his reply, the health department's demands amounting to Rs. 168 crores, and the demands of urban development department totalling Rs. 123.67 crores, were passed by the house.

He said that the Rs. 580.80-crore Nhava Sheva port project would be taken up by the Centre for execution in the first or second month of 1983, and was scheduled to be completed by 1986-87. About 3,400 hectares of land would be required for the project, and the state government would extend all help and co-operation to the Centre, he declared.

The Kalwa-Turbhe rail line project, aimed at promoting New Bombay development, would be taken up for implementation soon, Dr. Hiray said. Also with a view to reducing the congestion in Greater Bombay, all wholesale markets would be shifted as early as possible.

CSO: 5400/7064

## KARNATAKA ANTIMALARIA CAMPAIGN FAILS, MORE CASES

Bombay THE TIMES OF INDIA in English 5 Apr 82 p 6

[Text] BANGALORE, April 4: The incidence of malaria in Karnataka appears to be high. According to the 1980 figure — the latest available — the annual parasite index (positive cases per one thousand population) was 7.7, against the maximum of two prescribed by the government of India.

This is largely on account of ineffective insecticide spraying operations and blood smear examinations.

The national malaria eradication programme (NMEP), introduced in 1958, was to be implemented in three phases—attack, consolidation and

maintenance. During the attack phase, extending from three to five years, insecticides were to be sprayed in all buildings in selected units (each unit comprising a million population).

#### REMEDIAL STEPS

The major activity during the phase of consolidation was surveillance, including detection of active and passive cases and taking remedial measures in positive cases. After a minimum period of two years of consolidation, the area was considered for the maintenance phase during which vigilance services were expected to be maintained by the state government.

At the end of March 1969, over 1.55 crores of people were covered by the maintenance phase, indicating that the incidence of malaria was well under control. However, the total number of positive cases detected in the state steadily rose from about 39,000 in 1971 to more than 629,000 in 1977. There

was a sudden spurt in the total number of positive cases between 1970 and 1976, indicating that the vigilance services in the maintenance phase were not adequate.

In the context of the alarming increase in the incidence of malaria, the Union government approved a modified plan of operation from January 1977 in order to prevent deaths and maintain the achievements made till then. Although the modified plan envisaged that selective spray operations to be carried out in a year were two or more, there was a heavy shortfall in spraying, mainly due to short supply of insecticides.

From 1977 to 1980, a large section of the population requiring spraying was not covered in all the districts, except Belgaum. Curiously, the quantity of insecticides consumed in spraying operations in Belgaum was far in excess of the standard prescribed by the health department. The comptroller and auditor general of India has estimated the "avoidable extra expenditure" in this regard at Rs. 9.76 lakhs.

Blood smears were not collected in a large number of fever cases. All the blood smears collected were not examined or there was considerable delay in examining them. Many positive cases were not given radical treatment.

## BRIEFS

HEMORRHAGIC FEVER IN BONDOWOSO--Bondowoso, 18 March--As many as six persons have died out of 22 persons suffering from hemorrhagic fever, which has affected four districts in Bondowoso Regency of East Java. The districts affected are Kota, Tenggarang, Tamanan, and Cerme. In general, those affected are children under the age of 15. Dr Tjahyono from the Health Service of Bondowoso Regency stated that the epidemic of hemorrhagic fever which affected Bondowoso Regency in 1979 was limited to Kotakulon village in the city of Bondowoso, and only one person was definitely diagnosed as suffering from the disease. Later, in 1980 there was an outbreak of the disease in Badean village, but there also was only one person affected. In 1981 a case of hemorrhagic fever was recorded in Dabasah village, with two persons affected. In the same year two persons had the disease in Blindungan village, while one additional person in Nangkaan village was also affected. No one died as a result of these cases, all of which were located in the city of Bondowoso. In 1982, according to Dr Tjahyono, there was an outbreak of hemorrhagic fever in the city of Bondowoso in Tamansari and Badean villages, with two persons affected, one of whom died. In the same year 18 persons were affected by the disease in Cerme district, five of whom died. In Tamanan and Tenggarang districts one person came down with the disease in each area, but they were successfully treated. According to Dr Tjahyono, to prevent hemorrhagic fever from spreading to other areas, a volunteer force will be formed in the villages affected amounting to 1,330 people, two persons coming from each family. They will come to the various homes in the villages and spray the area, after having taken an orientation course. [Excerpts] [Jakarta SINAR HARAPAN in Indonesian 19 Mar 82 p 3] 5170

ANTHRAX IN WEST NUSA TENGGARA--Mataram, KOMPAS--Fourteen residents of Pengadang village in the Praya Lombok Tengah district of West Nusa Tenggara province have fallen ill with anthrax as a result of the clandestine slaughter of two horses which turned out to be suffering from the disease. The incident was only learned of at the beginning of March, after persons suffering from the disease came to be treated at the local Community Health Center [PUSKESMAS]. Doctor Juslis Katin of the Regional Health Office of West Nusa Tenggara and veterinary doctor Omik Koswara, livestock inspector in West Nusa Tenggara, accompanied by veterinary doctor Djamaludin, confirmed that 14 local residents are suffering from anthrax. However, according to the officials, no one has died. This statement was made in answer to the rumors which stated that three persons had died. The development of these cases means that anthrax has emerged again in Lombok after the last cases were recorded in 1977 in the village of Kawo in Pujut district. This time the disease is more serious because it has affected humans.



The persons suffering from anthrax in Pengadang village consist of eight adults and four children between 2 and 5 years of age. To prevent the spread of anthrax, the Livestock Service immediately undertook a campaign of mass inoculation of livestock in the two residential areas affected, as well as in 10 other areas nearby. Meanwhile Livestock Service officials advised the local government in Central Lombok to quarantine Pengadang village and prohibit the entry or exit of livestock. Furthermore, livestock in Central Lombok will be vaccinated with the 30,000 doses of vaccine on hand. Veterinary doctor Omik Koswara said that anthrax may at times emerge and affect livestock and even humans in West Nusa Tenggara. For that reason every year an anthrax vaccination campaign is undertaken, with emphasis on South Lombok, which is the region most frequently affected. [Excerpts] [Jakarta KOMPAS in Indonesian 18 Mar 82 p 6] 5170

CSO: 5400/8419

TSE-TSE FLY PREVALENCE, TREATMENT REVIEWED

Maputo DOMINGO in Portuguese 11 Apr 82 pp 8-9

[Excerpts] The communal settlement can constitute an important means for combating sleeping sickness, caused by the tse-tse fly, the insect responsible for so many deaths in Africa.

There will be less daily contact with the fly in the communal settlement making it possible to fight the glossina more effectively.

This is why health assistants in Tete are moving patients to more communal settlements after treatment.

Dr Jaime Arroz, Tete Provincial Hospital physician, has been working some 20 years in the treatment and diagnosis of this disease and is now committed to locating the tse-tse fly in that province.

"We now have a thorough investigation planned in the Macanga/Moatize area. Only when we know the fly's location can we do something; this will not happen as long as the people are scattered. It is important to organize the people in communal settlements, for they can constitute an important means for combating the fly. In his opinion, there must be a close liaison between the Provincial Health Directorate and the Communal Settlements Provincial Commission. Much work has been accomplished in Tete Province which can be turned to advantage and expanded for effectively combating this disease.

In Mozambique four species of the tse-tse fly infest about two-thirds of this area: Glossina Morsitans, Glossina Pallidipes, Glossinas Brevipalis and Austerni. The most significant is the Morsitans as it is the species found in the most extensive areas, and one of the leading sleeping-sickness carriers to man--known as trypanosomiasis rodiense--and the most deadly for domestic animals.

In our country, in the central sector, combating this disease is led by a commission for combating sleeping sickness, composed of the National Directorate of Preventive Medicine, through the National Health Institute, the National Animal Husbandry Directorate, the National Veterinary Research Institute and the National Communal Settlements Commission.

In Tete Province there is a laboratory directed by Dr Jaime Arroz, a Mozambican physician, assisted by a microscope operator and a male nurse who have acquired their knowledge in this field through experience accumulated over many years working in areas infested by the tse-tse fly. Although Tete Province is almost entirely overrun by the tse-tse, the endemic areas are in Zumbo District, near the Aruanga River on the south bank of the Zambezi, near the Zimbabwe border; in Casula, Macanga District; in Zobue and Cambulatsitsi, Moatize District; and in Chiuta and Mutara districts.

According to data given us, they have diagnosed 550 sleeping-sickness cases in this province.

In 1981 they verified 108 cases. Only in 1948, with the diagnosis of 123 patients did they find a greater number than ever.

An average of about 85 percent of the patients were cured.

To prevent a greater spread of the disease, measures aimed at eliminating the carriers, the tse-tse fly, must be taken.

The fight against this insect is very costly as it necessarily involves several organizations and utilizing various means, including insecticides and occupation of the field by some of the most efficient men.

The communal settlement is, therefore, the definite answer for combating the tse-tse fly.

8870

CSO: 5400/5943

## FEDERAL CABINET DISCUSSES HEALTH CARE PLANS

Karachi DAWN in English 19 Apr 82 pp 1, 12

[Text]

**RAWALPINDI, April, 18:** The Federal Cabinet, which met here today under the chairmanship of President Mohammad Zia-ul-Haq, discussed short and long-term plans for the health care and absorption of the graduate doctors.

Briefing newsmen, the Federal Minister of Health and Social Welfare, Dr Naseeruddin Joge-zai, said the Cabinet discussed strategies in the light of the recommendations of the committee constituted in November 1981, which derived its conclusions from the discussions it had with leading doctors and their associations, provincial officials and the other relevant quarters.

Dr Joge-zai said the Cabinet meeting, which lasted about 10 hours, was attended by the Governors of Punjab and Baluchistan, and the Acting Governor of NWFP. The Sind Governor, Lt-Gen Aubasi, was busy with the visiting President Sekou Toure of Guinea in Karachi.

He said the short-term steps for the health care and doctors' absorption were that 55 per cent of the fresh graduate doctors would be absorbed in the Sind and Punjab hospitals for the house job, and every effort would be made to absorb the remaining in a phased programme as the country's resources permitted and depending upon the increase in the bed strength of the hospitals. The absorption of fresh graduates in the NWFP and Baluchistan was already 10 per cent, he added.

Dr Joge-zai said further that specialisation facilities for 500 fresh graduate doctors existed in the country. Efforts would be made to increase the facilities at the rate of five per cent every year to make them available for about 1,000 doctors as soon as possible.

He said the Government had decided to fill up all the vacancies of doctors in the country, which were about 1,500 at the moment.

He said rural medical facilities would be increased by employing more doctors in the basic health units and maternity centres. The absorption of the doctors in rural areas would be brought about under a plan, and every effort would be made to increase the civic facilities for the doctors working in rural areas.

He said facilities like power, water and accommodation would be provided to doctors working in rural areas to ensure 24-hour presence by them.

Dr Joge-zai said the Government would give priority to the doctors working in rural areas by way of more scholarships and promotions. He said doctors would have to work in rural areas for about two years on the rotary system. It would be ensured by the Government that the rotary system worked well, through all sorts of incentives and considerations for the rural area doctors.

**PFI adds:** Dr Joge-zai told newsmen that a committee under the chairmanship of Dr Mehboobul Haq, Deputy Chairman, Planning Commission, had been set up to work out a comprehensive plan, for health care and medical graduates' absorption.

The committee would also include a representative of each

of the provincial Governments and two other members, namely Dr Bilqis Fatima from Lahore and Prof Abdul Latif, Principal, Medical College, Rawalpindi.

The committee will consult various medical organisations, specialists and doctors and would seek constructive suggestions from them.

The terms of reference of the committee will be to evolve programme for the absorption of the surplus doctors, to examine the career structure of doctors, to review the rural health programme and to examine the problems faced by lady doctors, etc.

The committee will work in close collaboration with the Federal Minister for Health and the President's Adviser on Health.

Regarding doctors working in the private sectors, he said they would also be encouraged to open their clinics in less developed areas for which they would be given incentives like duty-free import of equipment, and loans for the establishment of their clinics.

He said the local bodies would also be encouraged to establish dispensaries and health centres in their respective areas in a phased programme.

The lower paramedical staff, including technicians and ayas, would be given proper training at tehsil level and then sent back to their villages, he said.

Dr Mehboobul Haq told newsmen that the Cabinet discussed various steps to solve some of the problems faced by the doctors.

The Deputy Chairman of Planning Commission said certain areas of the country did not get

adequate medical aid, particularly the rural areas. The committee thus appointed by the Cabinet, he said, would evolve a service structure not only to satisfy the needs of the doctors but also of the nation.

When asked about the time limit required by the committee, he replied that within next two weeks, after necessary preliminary discussions with the officials of the Pakistan Medical Council, he would be able to achieve some satisfactory solution to the problem.

CSO: 5400/5945

## ADEQUATE PLANNING FOR ERADICATING TUBERCULOSIS STRESSED

Lahore VIEWPOINT in English 15 Apr 82 pp 5-6

[Text]

THE INTERNATIONAL Conference convened in Lahore by the Punjab TB Association has, once again, sought to remind the Government and people of Pakistan that the country is afflicted sorely with this fatal disease and that broader, more concerted, efforts are required to check its spread and control its ghastly consequences. According to figures revealed at the first session, on the basis of two national surveys conducted in 1960-62 and 1974-77, it is computed that seventy per cent of all Pakistani citizens above twenty years of age have been infected with tuberculosis; that a little more than half of our total population has been in contact with tubercle bacilli; that at present there are 1.6 million patients with radiologically active disease, and of these 2,60,000 are sputum infectious cases responsible for easily passing on the infection; and that the annual toll of death as a direct result of TB is about 68,000. Further, no expert can deny that, however carefully such surveys are planned and however assiduously they are carried out, in our con-

ditions they can never be regarded as complete. The poorer sections of our people, living in the country's far-flung regions, are usually beyond the reach of any sort of medical attention and, therefore, many of them could not possibly have been included in the data that constitutes these grisly statistics. It is, therefore, reasonable to assume that the picture presented to the Conference is a gross underestimate of the ravages of this foul disease.

The messages sent to the Conference by State dignitaries and the speeches delivered by doctors and other experts appropriately point out that our grave situation needs to be handled on a higher level through a wide, national effort, and that the inadequate official effort must be supplemented by the work of voluntary organisations and other aid-givers to cope with the enormous task. Apart from what the others had to say, the Frontier Governor aptly pointed out that the presence of 2.5 million Afghan refugees, living in camps and hutments without proper sanitation, had added greatly to the seriousness of the problem of

combating T.B. Various measures have been suggested to allow for greater success in eliminating the scourge. It was rightly pointed out that tuberculosis is a curable disease and that in many countries, as a result of effective public health programmes, it has been completely stamped out. It was also recommended that, apart from curative treatment and therapy, preventive measures, such as compulsory BCG vaccination for every new child born in the country, should be regarded as being absolutely essential. Plans have been outlined for setting up of a TB Foundation so that the work of TB Associations in the Punjab and other provinces can be expanded and improved, in order to reach these goals.

All that has been said at the Conference, or will be said by experts in their reports, is wholly relevant and deserves Authority's full attention. However, what seems to have escaped the attention of the sponsors and their patrons is that more than other diseases TB is correctly regarded as the disease of poverty. Its elimination in other lands has followed the elimination of poverty. It is obvious that as long as the vast bulk of our people subsist below the poverty line, and a majority of them are under-nourished and live in miserable hovels, the measures outlined may reduce its impact and mitigate its consequences but they cannot possibly help to root out the disease. When the food they eat is grossly inadequate, and apart from its quantitative

insufficiency its quality is poor with adulteration reducing its nutrition value, when most of our people cannot be supplied with clean and germ-free drinking water, when living conditions are insanitary and unhealthy, checking the spread of this and other diseases is just not possible. Therefore, while every possible effort must be made to evolve curative and preventive strategies to fight the menace of TB, the planners must keep in mind that the prerequisite to its elimination is the attainment and maintenance of living standards that can guarantee the minimum requirements for healthy living. Admittedly in our conditions this can only result from sensible long-term economic planning. This need has been stressed again and again over the last three decades, but little or nothing has been done to move forward in the right direction. Meeting these vital requirements demands

not only plans that will work to increase production and improve productivity, but they must ensure a fairer distribution of the national wealth, so that we are no longer faced with a situation where we have created small islands of affluence in a vast sea of poverty.

# GOVERNMENT TAKING STEPS TO ABSORB MAXIMUM NUMBER OF DOCTORS

Karachi MORNING NEWS in English 29 Apr 82 p 5

[Text]

The Government of Sind is adopting every possible measure to absorb maximum possible number of young doctors with better facilities in its various teaching and other hospitals, said Syed Ahad Yusuf, Provincial Minister for Health and Information while talking to a delegation of young doctors which called on him yesterday at his office.

The Health Minister gave a patient hearing to the delegation, discussed their problems with keen interest and assured them of all possible facilities.

Referring to the problem of paid house-jobs in Sind, the Minister said that due to keen interest of the Government the number of paid house jobs was raised to 775 not only in Government but also in semi-Gov-

ernment and private hospitals, he added. He pointed out that the efforts would be made to provide more jobs within the available resources, depending on bed strength.

Syed Ahad Yusuf stated that during the last 11 months, the Provincial Government had paid special attention to creation of posts, promotions and upgrading of doctors working in teaching and other hospitals of the Province. Which, he said, resulted in the provision of more jobs in teaching hospitals required for post-graduation for young doctors.

During the last 11 months it has been evident that the Sind Government focussed its attention on the need to provide better facilities to doctors particularly to the new medical graduates, he added.

CSO: 5400/5969



LEPROSY ERADICATION EFFORTS

Karachi DAWN in English 30 Apr 82 p 17

[Article by Iqbal S. Hussain]

[Text] Bonn--Dr Ruth Pfau is one of those few persons who devote their lives to improving the lot of others. As a physician and social worker she has been working in Pakistan for the last 20 years. Her major concern are the people suffering from leprosy.

Last month she was in Bonn to meet her parent Organisation "German Leprosy Relief Association" and a number of other social welfare bodies. She was here to intimate them about the work being done in Pakistan and the rate of progress being achieved over the past years.

During an informal talk, she said that though the Government of Pakistan was taking all possible measures and extending its cooperation towards eradicating the disease, a good deal remains to be done in this field.

When informed about a proposed plan to form a "Pakistan Leprosy Relief Association in Germany by the Pakistanis living in the Federal Republic, she appreciated the idea and promised to cooperate with it in Pakistan. She agreed with the idea that more and more Pakistanis should be involved actively in ensuring the eradication of the disease.

Currently there are about 65 relief centres operating all over Pakistan. New centres are being established in North-West Frontier province and Baluchistan where, in recent years, large influx of Afghan refugees has placed an increasing burden on the existing capacity of the relief organisation. Around 21,000 patients are under treatment but rough estimates point out the existence of another 15,000 cases which need detections and treatment.

Leprosy is not like any other disease. Its incubation period is long, and so is its treatment which spreads over several years. At the same time patients need persistent persuasion, based on salutary surroundings and adequate nourishment, to lead healthy, normal life. They need medicines as well as social care.

The obvious need is to improve facilities specially in areas which are inhabited by leprosy patients and are deficient in essential requisites for helping people lead normal lives. Frau Pfau is of the view that if necessary facilities could be provided, large majority of the patients would eventually be cured. The disease is curable and should not be dreaded any longer.

The leprosy relief workers in Pakistan are confident and believe the year 2000 will be the D-Day for winning their battle.

CSO: 5400/5961

## PHILIPPINES

### BRIEFS

LAPU-LAPU CITY BRONCHITIS--Bronchopneumonia is the leading cause of mortality of both adults and infants in Lapulapu city which recorded 128 deaths per 1,000 in 1981. This was reported by Dr. Mabini Berdin, Lapulapu city health officer, who said a five-year average of 82 deaths per 1,000 from 1975 to 1980 for adults and 37 deaths in 1981 and a 25 average of deaths during the same for infants have been caused by the sickness. Berdin said another sickness recorded as with a high rate of mortality is pulmonary tuberculosis which caused 74 deaths per 1,000 adults in 1981 and an average of 60 for 1975 to 1980. This is followed by gastro-enteritis which caused 28 deaths in infants in 1981 and a five-year average of 15 per thousand from 1975. Other leading causes of mortality among adults, Berdin said, are senility, new growth, malnutrition and influenza. Infants' mortality in the area are also caused by pulmonary asphyxiation and malnutrition. [Cebu City VISAYAN HERALD in English 25 Mar 82 p 1]

LEPROSY INCREASING IN CENTRAL LUZON--SAN FERNANDO, Pampanga, April 27--Leprosy, the biblical disease, is on the rise in Central Luzon. This was the finding of the regional office of the Ministry of Health as it revealed that 3,135 leprosy cases were registered in the region until the first quarter of this year. Health authorities said there were 3,079 cases the previous year and that 31 leprosy persons died and at least 65 afflicted to it recovered. [Manila PHILIPPINES DAILY EXPRESS in English 28 Apr 82 p 7]

CSO: 5400/5972

COLLAPSE OF PREVENTIVE SERVICES LEADS TO THREAT OF INCREASED DISEASE

Johannesburg THE CITIZEN in English 6 May 82 p 12

[Text]

THE health of all Southern Africa is being threatened by the limping and increasing collapse of health preventive measures in neighbouring Black states, according to Professor Guy de Klerk.

He said that within the borders of South Africa the Government did not hesitate to answer the call of sovereign Black states for medical health and guidance.

But outside Black states were witnessing an ever increasing collapse of preventive services which were leading to massively escalating threats of cholera, malaria, hepatitis and other infectious diseases to everybody in the subcontinent.

"And the real tragedy is that the organisation which could have done most to prevent this — the World Health Organisation — has itself become politicised.

"And because of this our services, the best in Africa, have no contact or liaison with similar services elsewhere in Africa."

Simply, he said, the problem and threat was one of: "If they're not healthy, we're not healthy."

The 10 000-strong Medical Association of South Africa would not hesitate "to hammer home the truth in any and every forum, any and everywhere, on every possible occasion."

CSO: 5400/5971

TANZANIA

BRIEFS

CHOLERA DEATHS, INCIDENCE--Kibaha--Six people died from cholera since its outbreak in Bagamoyo District on February 22 this year. According to the Coast Region Regional Medical Officer, Ndugu H. Mohamed, some 171 cases were reported for treatment. However, he said, by early this week, only one patient was still in medical care at Kwamakocho Village. The outbreak occurred at Kikaro Village where four people contracted the killer disease Kisangara (20), Kihangaiko (24), Kwamakocho (71), and Makola (52). [Text] [Dar es Salaam DAILY NEWS in English 23 Apr 82 p 3]

CSO: 5400/5962

TRINIDAD AND TOBAGO

BRIEFS

NEW SEWER LINE--A new sewer line is to be installed on the sea bed in Chagville, the Chaguaramas Development Authority (CDA) said yesterday. The CDA, Water and Sewerage Authority (WASA) and the Utility and Engineering Corps of the Ministry of National Security have begun work on replacing the defective line which is causing the pollution in the Chagville/Welcome Bay areas, Mr. L. A. Boyce, general manager of the CDA said. The new sewer line will connect the completed submarine line from Point Gourde to the WASA pump station near the heliport hangar. Mr. Boyce said whenever the services of the Utility and Engineering Corps could be used for the public in Chaguaramas, he was prepared to have them participate. He hoped that the sewer project would be completed before August. Over the past years tons of untreated sewerage have been spewing from the corroded submarine mains. Warning notices on the health risks to swimmers posted by the CDA have been ignored by the public. [Port-of-Spain TRINIDAD GUARDIAN in English 22 Apr 82 p 3]

CSO: 5400/7546

MINISTER OF HEALTH DISCUSSES PUBLIC HEALTH PROBLEMS

Hanoi NHAN DAN in Vietnamese 10 Apr 82 p 3

[Article described as "Excerpt from the Report of Comrade Vu Van Can, Minister of Health": "The Work of Protecting and Strengthening the Health of the People"]

[Text] Since 1976 we have increased the number of hospital beds by 40,730, which accounts for 29 percent of the total number of hospital beds we have at the present time; however, this only represents a little more than 24 hospital beds per 10,000 persons. Even by the end of the Third Five-Year Plan (1981-1985) we will be lucky if we could raise that ratio to 25 beds per 10,000 inhabitants. With such an excessively low patient/bed ratio and with the extremely low amount of allowable expenditure per bed, the public health branch has allocated 60 percent of its budget to the care of patients but still runs into many difficulties.

Subjectively speaking, in hospital management the public health branch still shows many deficiencies. Next to the more advanced hospitals whose number has increased, in many other hospitals the quality of medical care has been let to fall down, in some situations seriously. A number of hospital cadres and personnel have proved to be arrogant, authoritarian, irresponsible, giving the patients the run-around, colluding and stealing, implementing the three-interest policy in erroneous fashion, neglecting the care of the patients and thus bearing negatively on the excellence of a socialist hospital, on the ethics of a people's public health cadre and on the very work of medical care.

Our plan to overcome the above situation so as to raise the medical care quality includes the following measures:

1. To persist in the direction of preventive medicine, to strengthen and consolidate the public health base units, to open more diagnostic centers and folk medicine diagnostic and treatment centers, to organize the care of outpatients, and to do well the public health management work.

We consider this to be the most fundamental direction both in order to master the situation of medical care and to raise the quality of that care.

2. To raise our diagnostic and treatment capabilities and techniques, combining modern with traditional folk medicine.

To fully utilize the modern machinery and equipment at our disposal, to gradually complement the equipment of hospital in key cities in each area coupled with the staffing of more cadres and to raise their level of specialization so as to gra-

dually raise our level of diagnostic and treatment capabilities. To go on expanding the applicability of traditional folk treatment methods, both those that require medicine and those that do not require it such as acupuncture, nutritional methods.

3. In following the direction of "both the state and the people's doing it together," we must at all cost guarantee that every hospital have enough budget for its expenditures and enough material bases for serving the patients, coupled with the improvement of management and the amelioration of the cadres and staff's living conditions.

4. To raise the leadership role of the Party and to increase the political and ideological education work in the hospitals.

Even in normal circumstances work in the hospitals already constitutes an arduous and demanding kind of work; in the present difficult situation we are in, that work is even more arduous and demanding. This is why I would like to suggest that the various echelons in the ministry and Party at the various localities and hospitals pay attention to this hospital work so as to overcome in time the difficulties, to educate and mobilize the cadres and staff in time with regard to their responsibilities and service attitudes, to resolutely fight against negative phenomena in the hospitals while at the same time, through that type of work, make the state organs and people understand and help them in a realistic manner so as to raise even higher the quality of medical care, thus responding in appropriate fashion the ever increasing requirements of the people.

How can we have enough medicine for the people, that is an extremely urgent question that the public health branch has to face. Our plan for solving this question is:

1. To have an effective and active policy to encourage the localities to grow natural pharmaceutical plants on a vigorous scale, to produce by themselves common medicine at the village, district and provincial levels, and to supply the central enterprises with enough raw materials.

At the village level, to plant 35 different plants so as to take care of 7 common diseases in the form of simple drug varieties such as potions, powder, pills, etc. The medicine produced at the village level will guarantee 50 to 60 percent of the common pharmaceutical needs. At the present time over 3,000 villages have been able to do so, and we are proposing that by the end of 1985 there should be at least 5,000 to 6,000 villages capable of doing so. At the district level, after they have been given the personnel to administer it many districts have produced good quality medicine.

At the present time, every province has its own pharmaceutical enterprise, pharmaceutical corporation, and a number of them have their pharmaceutical ingredients corporations. We have proceeded to unifying these organizations on a tentative basis so as to create combined enterprises that can do all three tasks of raising and planting and collecting pharmaceutical ingredients, producing drugs and distributing drugs to the district pharmacies. With such active involvement at all three levels, the village, district and provincial levels, the localities may be able to take care of their most common needs, participate in export and guarantee enough raw materials for the central enterprises.



2. At all cost to prepare to develop chemical drugs and build the antibiotics industry.

With a population of over 50 million people we have extremely great need of antibiotics and chemical drugs, which account for 65 to 70 percent of the total value of our pharmaceutical needs. The Fourth Party Congress Resolution and the present Congress's Political Report have made it a requirement that we build up our pharmaceutical industry. We believe that this industry must be fully integrated, including pharmaceutical ingredients and extracts industries and industries producing chemical drugs and antibiotics. As far as chemical drugs are concerned, at the present time we only have one small enterprise; we need to expand this sector and make full use of those units that are capable of producing them at the present time, produce more chemical drugs on a small scale so as to fully utilize the by-products of our chemical and food industries. As far as the antibiotics industry is concerned since we do not have it yet, we will start with tentative production shops on a small scale so as to prepare ourselves technically and industrially. In the 1981-1985 Five-Year Plan, the state has projected to make preparations for building an antibiotics plant. This is a very exciting project.

3. To increase export so as to import in adequate quantities the main drugs needed for medical treatment while doing our best to limit the import of common drugs.

Seventy percent of the medicine used at the present time must be imported in the form of raw materials or completed products. How can we solve this problem while we are still short of foreign exchange? We believe it absolutely essential that we increase our exports. I suggest that the Ministry of Foreign Trade do its best to help the public health branch to fulfill this task, that it rapidly combine action with the Ministry of Public Health to organize an import-export federation in charge of medicine and medical equipment.

4. While we still do not have enough medicine, the rectification of the medicine distribution and utilization links is an extremely important task meant to insure the rational, economical and appropriate use of the drugs.

The hospitals are the priority units receiving the medicine and thus they must also be the ones to fully implement the movement for safe and rational use of the medicine. The retail drugstores guarantee the availability of the more common medicine in general use, they must also be closely monitored so that the medicine get sold only to those in real need. The prices of medicine are also being revised so as to become more appropriate. The free market in medicine should be managed really strictly by the various localities, strict enforcement must be imposed to stop the completely free trade in medicine and the circulation of fake medicine and poisonous drugs.

After nearly 20 years of implementation of the movement for planned birth, the public health branch believes that it is time to attempt the question of "rectifying the birth rate so as to make it compatible with the level of economic development."

At the present time there are 1,146 villages and 21 districts and townships which have reached the natural population growth rate of less than 15 per 1000. Of the number 160 villages and neighborhoods have reached the ideal rate of 6 to 10 per 1000.

To provide more efficient guidance to this task, we also propose the creation at the central level of a Population Commission composed of the representatives of the State Planning Commission, the Labor and Public Health Ministries, the General Statistical Department and the various mass organizations such as the labor unions, the youth union, the women's union, the peasant unions and the army, which would be chaired by a Vice President of the Council of Ministers. At the provincial and district level there would be a Population Committee chaired by a comrade vice-chairman of the provincial or district administrative committee.

With the implementation of the above measures I am convinced that by 1985 the natural population growth rate will reach 1.7 percent and could be even lower.

1751

CSO: 5400/5954

LUAPULA CHOLERA UNDER CONTROL

Lusaka DAILY MAIL in English 21 Apr 82 p 5

[Text]

THE Ministry of Health will soon lift restrictions of movement imposed on cholera-hit Luapula Province because the disease is now under control, Minister Mr Ben Kakoma said yesterday.

Speaking when he briefed visiting regional director of the World Health Organisation (WHO) Dr Comlan Quenum at his office, Mr Kakoma said 62 deaths were recorded and 570 cases treated during the outbreak.

The minister said although a surveillance medical team had been maintained in the area, there had been no new cases since early March.

"Although we have not yet lifted restrictions in the area we hope to do so in a few weeks' time," he added.

CSO: 5400/5946

SIDA TO PROVIDE RABIES VACCINE, TRYPANOSOMIASIS DRUG

Lusaka DAILY MAIL in English 25 Mar 82 p 3

[Excerpt]

THE Swedish International Development Agency (SIDA) will provide 100,000 doses of rabies vaccine worth K115,100 to the department of Veterinary Services under the Swedish Import Support scheme for 1982.

Under the same support, SIDA will buy 5,000 tins of Samorin — a drug used in control of trypanosomiasis — (sleeping sickness), worth K30,000.

A spokesman for the Ministry of Agriculture and Water Development announced this yesterday following reports that funds allocated for the purchase of rabies vaccine were diverted to buy foot and mouth disease vaccine to control the current outbreak in Southern Province.

The spokesman explained that while the funds for the control of foot and mouth disease were estimated for and approved, despite being released on

small monthly allocations, a system which he said greatly hampered the disease control measures, no funds were specifically allocated for the purchase of rabies vaccines.

He said that the rabies vaccine would have been bought on the materials vote had the problem of obtaining foreign exchange allocation been solved.

The spokesman explained that all efforts to obtain foreign exchange to purchase the vaccine proved futile. But under the Swedish import support for 1982, SIDA will purchase the drugs and the department will re-imburse them in kwacha when the vaccines arrive in Zambia.

The spokesman also paid tribute to other organisations such as the Food and Agricultural Organisation, and the Royal Netherlands Embassy for having purchased the bulk of the foot and mouth vaccines currently being used.

CSO: 5400/5960

## AUSTRALIA

### BRIEFS

**RYEGRASS TOXICITY BATTLE**--The damaging livestock disease known as annual ryegrass toxicity, may eventually be brought under control. The Minister for Primary Industry, Mr Old, has raised hopes that a vaccine to combat the disease may be developed. He said yesterday that WA was leading research into the disease, which was still spreading. Total losses in WA since records had been kept had been 21,000 sheep and 360 cattle. The disease was traumatic and costly--it not only caused stock deaths but meant that pastures could not be grazed at certain times, reducing carrying capacity. It was also costly for producers to undertake ryegrass control measures, he said. But there was some hope for eventual control. [Text] [Perth THE WEST AUSTRALIAN in English 18 Mar 82 p 35]

**MAIZE DISEASE THREAT**--A disease which has the potential to destroy the Australian maize crop has been discovered in Northern NSW and yesterday was detected in southern Queensland. The disease, known as Boil Smut, is a mushroom-type fungus which is dangerous to humans and animals and has been unknown in Australia for 40 years. The presence of the disease was confirmed on a property near Kyogle, 30 kilometres west of Lismore, this week and sparked an intensive search by Department of Agriculture officials. The North Coast area director of agriculture, Mr N. Vane, said yesterday the spores of the disease can be carried in many ways, including by air and water. An emergency conference of experts on crop diseases from all States was held in Sydney yesterday to map out a plan to combat the spread of the disease. In the meantime, nine teams of investigators are checking maize crops in northern NSW in a bid to determine the extent of the spread. If the disease is found to be widespread throughout Australia, it could have a serious effect on the production of cereals for humans and animal fodder. [Sydney THE SYDNEY MORNING HERALD in English 26 Mar 82 p 2]

CSO: 5400/7547

## BRIEFS

POULTRY DISEASE EPIDEMIC--Brahmanbaria, Apr 8--Poultry diseases has broken out in an epidemic form to the 3 thanas of Brahmanbaria Subdivision, resulting in their large scale death. It is learnt that poultry diseases and the deaths accruing thereof in the Nabinager Bancharampur and Kasba police stations are being intensified and widespread anxiety is being caused. It may be mentioned here that huge number of poultry died in Kasba PS. It is reported that lack of treatment in the villages such as Kufti, Baidur, Mehar, Shahpur under Kasba Police Station and in the villages of Yusinpur, Rasulpur, Maricha Kandi, Gopalpur under Nabinger Police Station, Fatehpur, Daria, Daulatpur, Bakherchar under Bancharampur Police Station, the number of deaths is increasing and thousands of poultry are being lost. When contacted with the veterinary doctors of the thanas, they told this correspondent that lack of insufficient supply of medicine, the diseases spread rapidly. Further, the farmers alleged that after repeated appeals for medicine and treatment, they got no response from the concerned authority in this connection. [Text] [Dacca THE NEW NATION in English 19 Apr 82 p 2]

CSO: 5400/7066

THREE NEW CASES OF FOOT-AND-MOUTH DISEASE REPORTED

Copenhagen BERLINGSKE TIDENDE in Danish 22 Apr 82 p 1

[Article by Jens Trudsø]

[Text] After a week without any new cases of hoof-and-mouth disease, there was yesterday an alarming development in that three new cases were reported, all of them near Otterup in North Funen. A total of 21 cases have thus been ascertained in well over 1 month.

The first case yesterday was ascertained in a stock of 10 cows and 32 pigs at Tørresø. A few hours later, the disease was ascertained at a farm at Agernæs with 140 cows. And late the same day, the veterinary authorities reported that they had ascertained another case at Tørresø. It is a question of a stock of 75 cows and 15 pigs.

In all of the cases, arrangements were made to have the cows and the pigs killed rapidly, and a total of 3,890 animals have so far had to be killed on account of the disease.

The veterinary authorities were yesterday unable to provide any information on the way in which the disease has been passed on and were thus also unable to say if there is any direct connection between the two cases.

Erik Stougaard, director of the Veterinary Services, said yesterday that the new cases do not give him reason to consider any further veterinary measures. He stressed, at the same time, that the question of vaccination will have to be decided by the Ministry of Agriculture.

The first 16 cases of hoof-and-mouth disease now occurred so long ago that the risk of infection from these sources has been overcome.

With the new case last Wednesday, there are now three areas which constitute a continued element of risk. The two areas at Otterup and an area at Ferritslev within the original area kept under observation.

7262

CSO: 5400/2139

## MOZAMBIQUE

### BRIEFS

SOFALA ANIMAL DISEASES--The province of Sofala is presently affected by 26 types of animal diseases, according to the results of an investigation conducted by the provincial laboratory of veterinary medicine. These results come after arduous investigative work over a period of two years and show that among animal diseases anaplasma should be noted; this is a hematoparasitic disease transmitted to cattle through insects and mosquitoes. Another disease is trypanosomiasis which, besides animals, can also affect humans through the tsetse fly. Finally, there are also foot-and-mouth disease and African swine fever, well-known to cattle owners because of their terrible consequences, such as the African swine fever epidemic that recently affected the city of Beira and its suburbs, leaving entire pig pens deserted. [Excerpts] [Beira DIARIO DE MOCAMBIQUE in Portuguese 6 Apr 82 p 3]

CSO: 5400



## BRIEFS

**SALMONELLA HITS BROILER STOCKS--**Salmonella has increased sharply among broilers. One-and-a-half million animals have had to be slaughtered to a value of approximately 15 million kronor. There is little risk that people will be infected; it is important to prepare the broiler properly. Authorities and producers have had an emergency meeting about the outbreak of salmonella. The source of the infection is unknown but a feed factory is suspected. The salmonella has been on the decline during the 1970's, but during the winter of 1981 thirty-four flocks were contaminated. They had 89 outbreaks of salmonella. This year 1.2 million chickens were killed. The cost of this as well as for sampling and cleaning-up was 10 million kronor. During the first quarter of this year 27 flocks have already had 59 outbreaks of salmonella, which have cost society approximately 5 million kronor, and 300,000 animals have had to be emergency slaughtered. The government pays the feeders 90 percent of their costs in case of salmonella. The sharp increase in salmonella becomes clear from statistics from the State's Bacteriologic Laboratory (SBL). "As far as we know no human being has yet been contaminated by salmonella after having eaten chicken," Professor Margareta Bottinger at SBL tells TT. "But hygiene is important. The salmonella bacteria are sensitive to heat and die at plus 70 degrees C. You should therefore make sure that the chicken have been fried or boiled, properly through," says Bottinger. "Do not eat old chickens either. Do not mix raw meat with prepared meat." In large kitchens with long preparation times the personnel have become aware of the risks and the hygiene, and the handling has been improved significantly. In the agricultural administration in Jonkoping a meeting was held last week about the salmonella among broilers. [Text] [Stockholm DAGENS NYHETER in Swedish 7 Apr 82 p 12] 8958

**FEED SUSPECTED IN CHICKENS' SALMONELLA--**"We still do not know what the marked increase in salmonella among slaughtered chicken is due to. We have started an extensive mapping," veterinary counsel Bengt Nordblom at the agricultural administration tells TT. "This year a special type of salmonella has appeared in 17 flocks. The feed for the chickens has been bought from the same factory. This factory is closed and is working on cleaning up. If the epizoty (epidemics among animals) decreases afterwards, then we have isolated a source of contagion." "But we have no explanation for the salmonella breakout last year." "It has been very difficult. In spite of emergency slaughtering and decontamination, the contagion has returned." Sweden has unusually "clean" chickens compared to, for instance, the United States, Canada and Holland, where salmonella,

in spite of a high hygiene, is much more common. After earlier breakouts of salmonella in broilers, the control has been tightened up significantly in Sweden. The majority of Sweden's 30 to 40 million slaughtered chickens in 300--400 flocks is included in a voluntary control. During the approximately 6-week feeding random tests are made twice in the broiler flock. "Even if contaminated animals should get out on the market, the risk is minimum that people will be contaminated," says Nordblom. The food administration considers the situation to be under control. [Text] [Stockholm DAGENS NYHETER in Swedish 8 Apr 82 p 15] 8958

CSO: 5400/2131

GOVERNMENT URGED TO IMPORT FOOT-AND-MOUTH DISEASE VACCINES

Lusaka TIMES OF ZAMBIA in English 19 Apr 82 p 7

[Excerpt]

THE Government has been urged to import immediately enough vaccines to control foot and mouth disease before livestock die of starvation because of restricted movements.

Chairman of the Commercial Farmers Bureau, Mr Dennis Garner said in Mazabuka yesterday that the ban on the movement of livestock in Southern Province created problems for farmers in the area.

"Now livestock, particularly cattle, cannot be moved from areas declared foot and mouth disease infected."

As a result, farmers wishing to transport their animals to markets in Lusaka and the Copperbelt cannot do so for fear of spreading the disease.

Although Livingstone and Kalomo were declared foot and mouth disease free areas, the number of animals transported and slaughtered at the

Cold Storage Board depot in Livingstone was not enough to meet needs in Lusaka and on the Copperbelt.

The situation was aggravated by drought in the province, resulting in some farmers wishing to sell their animals before they died of starvation and thirst.

"We hope the Government acts fast and makes available foot and mouth disease vaccines in time to allow livestock movements."

The CFB chief was, however, optimistic of improvements before any more harm was done to the livestock and meat industry.

Recent meetings between bureau representatives and Government officials had raised hope that everything possible was being done to save the situation.

CSO: 5400/5960

## FAO DONATES FOOT-AND-MOUTH DISEASE VACCINES

Lusaka DAILY MAIL in English 20 Apr 82 p 3

[Text]

THE Ministry of Agriculture and Water Development has received a donation of 200,000 doses of vaccines from the Food and Agriculture Organisation (FAO) for controlling foot and mouth disease in Southern Province.

Minister of State, Mr Noah Dilamonu, said that FAO volunteered to donate the drugs in order to help the Party and its Government contain the cattle disease in the province.

Mr Dilamonu assured cattle farmers that his ministry was doing everything possible to "wipe" out the foot and mouth disease in the area.

He said this when commenting on the call by the chairman of the Commercial Farmers Bureau, Mr Dennis Garner, who urged the government to immediately import enough vaccines to control the disease before livestock die of starvation because of restricted movements.

"We will confront the disease until it is wiped out. Our aim is to control the disease hundred per cent," he added.

Mr Dilamonu said that should need arise, the ministry will import more vaccines to

control the foot and mouth disease in the Southern Province.

The minister disclosed also that he will next month conduct an inspection tour of Southern Province to carry out on the spot check on the control of the disease in the area.

— Zana.

CSO: 5400/5947

AUSTRALIA

BRIEFS

UNRESTRICTED FRUIT SHIPMENT--Regulations restricting the movement of fruit within WA have been repealed. The legislation, introduced more than 60 years ago to help prevent the spread of fruit fly, was no longer useful, the Minister for Primary Industry, Mr Old, said yesterday. Fruit fly was now found in most fruit-growing districts, but modern control methods were effective. Mr Old said that all fruit growers, whether commercial or home gardeners, were required under the Plant Diseases Act to control fruit fly on their properties. It was an offence to offer for sale any fruit infested with fruit fly. Fruit could now be taken anywhere in WA, though bananas were still not allowed into Carnarvon. Mr Old said that it was not longer necessary to fumigate or cold-store fruit being taken into the South-West. [Text] [Perth THE WEST AUSTRALIAN in English 15 Mar 82 p 11]

CSO: 5400/7543

## ETHIOPIA

### BRIEFS

WORM CONTROL--Arba Minch--A pest control campaign is underway in four provinces of Gamo Goffa region to arrest a recent outbreak of an attack by an invading worm. The worm which came about as a result of the recent rains has caused damages to sprouting maize, sorghum and a variety of crops and grass, according to Comrade Deribe Mamo, regional representative of the Ministry of Agriculture. The regional office of the ministry has presently deployed its manpower and pesticide resources to contain the epidemic, the Comrade Deribe pointed out. [Text] [Addis Ababa THE ETHIOPIAN HERALD in English 20 Apr 82 p 6]

CSO: 5400/5964

GRAIN-EATING BIRDS SPREAD, DAMAGE MILLET, PADDY FARMS

Dar es Salaam DAILY NEWS in English 24 Apr 82 p 3

[Text] Large swarms of the grain-eating quelea quelea birds, spotted in Igunga District in Tabora Region last month, have now spread to neighbouring Nzega and Tabora districts, causing extensive damage to millet and paddy farms.

The Tabora Regional Development Director, Ndugu Daniel Mkumbwa, told Shihata yesterday that the birds could destroy more than 50 per cent of the crop in the areas if an aircraft for aerial spraying was not immediately despatched from Dodoma.

He said, however, that peasants in the areas had sought to harvest their crops to save them destruction as they wait for government measures to fight the birds which continue to spread to other areas in large groups.

The Regional Agriculture Development Officer, Ndugu Adolf Kilumanya, confirmed that the birds had until early this week, spread to the Manonga River Valley in Nzega District where they have caused extensive damage to crops.

He said the destructive birds were spotted moving in large groups around many villages in Igunga District, including Simbo, Choma and Chibiso and Uyi Division in Nzega District.

Ndugu Kilumanya further explained that the birds were also seen in some villages bordering Shinyanga Region in an area stretching from Nata Village to some villages around Nzega town.

He said, the extent of damage is yet to be known. But the birds were in larger groups than those spotted last year.

In April last year, the birds [word illegible] Igunga but were fought off before causing extensive damage.

The Bird Control Unit based at Manyoni in Singida Region had been informed about the situation but is unable to despatch an aircraft because the plane is being used in Manyoni District where the birds are also reported to be attacking millet fields.

CSO: 5400/5967

## BATTERIES REQUIRED FOR BOLLWORM SPRAYERS RECEIVED

Dar es Salaam DAILY NEWS in English 17 Apr 82 p 3

[Text]

THE Arusha-based Tanzania Farmers Association (TFA) will today receive 600 cartons of torch cells needed to run the micro-ulva insecticides machines for spraying seed bean bollworms.

This was said in Dar es Salaam yesterday by the General Manager of the Domestic Appliances and Bicycle Company (DABCO), Ndugu J.K. Kapinga, when commenting on reports that 150 million/- worth of seed beans were being threatened by bollworms in Arusha Region because TFA had not been supplied with sufficient torch cells.

Ndugu Kapinga told the *Daily News* that his company had already arranged with the Matsushita Electric Company to supply TFA with the cells, adding that they will be delivered to TFA in Arusha today.

Ndugu Kapinga, however, wondered why TFA had to wait until such a critical situation developed.

"TFA had not in the past consulted us about the issue, otherwise we would have regarded it as top priority like we usually do to the Tanzania Cotton Authority batteries requirements," Ndugu Kapinga stressed.

Earlier, the Deputy Minister of Agriculture, Ndugu L.A. Kasupa, said

that his Ministry had heard for the first time the TFA complaints through press reports.

A spokesman for the TFA was recently reported to have said that unless there was immediate procurement of 600 cartons of torch cells, either from Matsushita or DABCO, more than 150,000 acres of already planted seed beans would be destroyed by bollworms.

His Association, he said, had approached Matsushita early last January with a request for the cartons and also had informed the Ministry of Agriculture about its urgent requirements.

"But despite three reminders, we did not get any reply until early this month. The reply said that the company (Matsushita) could not supply the cells and advised us to channel our application through the Regional Development Director to DABCO," he said.

The spokesman added that TFA had imported insecticides worth 12 million/- and farmers had already invested millions of shillings in growing the seed beans which are only meant for export.

He wondered how all these investments and the prospects of exporting between 300,000 and 400,000 bags of seed beans could be frustrated by torch cells which are manufactured locally.

CSO: 5400/5949



# LARGE GRAIN BORER SPREADS THROUGHOUT SHINYANGA REGION

Dar es Salaam DAILY NEWS in English 21 Apr 82 p 3

[Text] THE large grain borer formerly confined to Kahama district, has now spread to all other remaining districts of Shinyanga region.

According to the Shinyanga Regional Agricultural officer, Ndugu E.S. Jaggadi, about 40 percent of the produce in stores in Kahama district has been infested. Another 10 per cent in Shinyanga District is infested, while Maswa and Bariadi suffer a 2 per cent infestation each.

Ndugu Jaggadi said of late, the pest has assumed very peculiar habits especially in Kahama district, where instead of eating only stored grain they have been found to consume greens in the farms. He has requested some 700,000/- from the Ministry of Agriculture to buy 35 tons of actellic 2 per cent insecticide which should be enough to combat the pest in Shinyanga region for 1982/83 financial year. However he has received only 9.5 tons so far, he said.

Ndugu Jaggadi said following the spread of the pest to the whole region, there was a need to get more insecticides to supply to farmers.

CSO: 5400/5948

BEAN CROP SAVED FROM WORMS

Dar es Salaam DAILY NEWS in English 22 Apr 82 p 3

[Text]

THIS season's seed bean crop has been saved from worm attack by the timely arrival last week of 600 cartons of torch cells, according to a Tanganyika Farmers' Association (TFA) spokesman.

More than 75,000 hectares of seed beans were last week reported in danger of worm attack, but TFA appealed to the Ministry of Agriculture for immediate help in procurement of the cells which were required in "microm ulva" spraying of the insecticides.

The spokesman said that 200 cartons were supplied by the Arusha Regional Trading Company last Friday while 400 were despatched from Matsushita Electric Company in Dar es Salaam the same day.

He said farmers, whose beans had begun flowering, had purchased 225 cartons since Monday. With an average daily purchase of 100 cartons, the cells will only last another week.

TFA members in Arusha region are expected to harvest between 300,000 and 450,000 bags of seed beans worth 150m/- which are mainly for export.

CSO: 5400/5963

AFRICAN BEES BEING CONTROLLED THROUGH GOVERNMENT PROGRAMS

Port-of-Spain TRINIDAD GUARDIAN in English 20 Apr 82 p 1

[Text] To date a total of 279 swarms of Africanised bees have been destroyed in Trinidad by the Government's Apiaries Unit, since the first of the unwanted bee swarms was discovered on July 17, 1979.

The heaviest concentration of the bees is in County St. Patrick, and particularly the South West peninsula containing Cedros and Icacos, where 75 per cent of the Africanised bees were found. There have been no sightings of the Africanised bees in Tobago and Government hopes to keep Tobago free of the bees.

This information was revealed to members of a beekeeping course at Centeno yesterday by the head of Government's Apiaries Unit, Mr Sardanand Ramnarine.

Looking at the movement of the Africanised bees, he pointed out that since December last year they have been slowly migrating up Trinidad's west coast. They should reach the northern urban areas by the end of the eighties and then start an eastward movement.

In the past, the officers of the Apiaries Unit had concentrated on destroying swarms of Africanised bees but now they were using queen substitution as another control method.

When beekeepers notice very aggressive behaviour by their bees it is usually because Africanised bees have invaded and taken over existing hives. In response to this, Apiaries Unit personnel enter the hives, remove the Africanised bee queen and substitute an already fertilised and docile Italian bee queen.

Mr Ramnarine explained that the Italian queen then kept on producing docile Italian bees, and in a while the Africanised bees became outnumbered, died out and were not replaced.

Admitting that it was very difficult to control or get rid of Africanised bees, Mr Ramnarine pledged government's full efforts in the fight.

Fortunately, Tobago was still free of the dreaded bees, which tend to attack easily when disturbed and to persist in aggressive behaviour longer than

Italian bees. A few dogs have been killed in recent times and there have been occasional reports of humans beings stung.

#### Customs Helping

To keep them out of Tobago, Government has asked the Customs and Excise department for help in controlling movement of bees or bee equipment to the sister isle. Efforts are also being made to ensure that the bees are not carried to Tobago on a ship.

Normally the bees are not known to fly distances like the 20 miles to Tobago though they have flown as much as seven miles across the Orinoco.

According to Mr Ramnarine, the Africanised bees are generally noticed by their behaviour, which tends to be more aggressive than ordinary bees. They are also darker and a little smaller, and work longer hours than Italian bees.

Recently swarms of aggressive bees have been destroyed in El Socorro and Erin, and apiaries officers are stationed in every agricultural station to help beekeepers cope with Africanised bees and other normal problems.

CSO: 5400/7546

## NORTH WORKS TO PREVENT INSECT INFESTATION

Hanoi QUAN DOI NHAN DAN in Vietnamese 12 Apr 82 p 1

[Article: "North Actively Engaged in Prevention and Elimination of Insects and Pests in Order to Protect the Winter-Spring Crop"]

[Text] The cooperatives, production groups, production solidarity cells and the farmers in the whole country are concentrating their efforts on actively preventing and eliminating insects and pests in order to protect the winter-spring rice crop until harvest time.

In the North the cooperatives have done their second weeding for over 77 percent of the area and the third weeding for over one third of the total rice acreage.

In the last week practically all the localities had rain which is why the rice acreage needing water has decreased as compared to the week before, thus creating favorable conditions for the fifth-month and spring rice to develop well.

Of note is the fact that owing to the heavy weather which lasted many days, the insects and pests, especially the fungus-type, have had the opportunity to develop. In all of the North there are almost 100,000 hectares infested with these diseases or an increase of 6,000 hectares as compared to the end of March. The localities most affected are: Thanh Hoa, 21,000 hectares; Ha Nam Ninh, 20,000 hectares; Binh Tri Thien, 20,000 hectares; and Thai Binh, 12,000 hectares.

Many localities and cooperatives have organized to inspect the fields, to categorize the rice varieties, and to determine the appropriate kind of care for them; discover and actively organize the work of prevention and elimination of insects and pests affecting the rice crop. Ha Nam Ninh Province has categorized the rice and found that nearly 50 percent of the acreage are of the good variety, more than 40 percent of the average type and more than 10 percent of the poor variety. The cooperatives are doing one more weeding and adding fertilizer for over 50 percent of the poor and average kind acreage.

Many cooperatives in the provinces of Ha Nam Ninh, Ha Bac, Vinh Phu, Thanh Hoa, Nghe Tinh, Thai Binh, Hanoi City, and Hai Phong have revamped the organizations in charge of plant protection, directly provided them with guidance so that they combine their work with those cooperative members who have contracted to do the inspection of the fields, to detect the situation of pests and insects, using both chemicals and vegetal repellents to eliminate the insects and pests.

In the work of plant protection during this crop, many cooperatives have paid a

good deal of attention to the question of active engagement in the prevention and elimination of planthoppers even though they have appeared only here and there on a low density, i.e. 5 to 10 found on a square meter. However, they can develop very fast later on when the weather becomes warmer and when the rice starts earing.

1751

CSO: 5400/5954

VIETNAM

BRIEFS

HA NAM NINH HARMFUL INSECTS--Some 30,000 hectares of 5th-month spring rice in Ha Nam Ninh Province have been ravaged by leaf rollers. The province has assigned agricultural cadres to rice-rich districts such as Xuan Thuy, Hai Hau, Kim Son, Nam Ninh and Nghia Hung to help eradicate the insects. [Hanoi Domestic Service in Vietnamese 1430 GMT 30 Apr 82 BK]

CSO: 5400/5952

END